Ehsan Al-Agtash

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EDUCATION

Bachelor Of Science in Mechanical Engineering Expected Graduation: Dec 2022

San Jose State University, San Jose, CA, GPA 3.2

SKILLS

Software: SolidWorks, MATLAB, Circuit Python, Visual Studio Code, Microsoft Office Suite, LabVIEW, ArduinoIDE

Programming Languages: C++, Python, Java

Test Equipment: Pneumatic pressure and flow, high/low-frequency AC, DC, resistance, force, torque, Armstrong

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EXPERIENCE

Supira Medical, Los Gatos— R&D intern May 2022 - Aug 2022

- Designed and built fixtures for the operations team to aid manufacturing repeatability
- Designed and built 2-axis automated coiler to drive catheter for lamination and winding
- Collaborated alongside operators to test and design a 360-degree UV curing station to help with consistent glue bonding
- Mechanically designed an impeller trimming fixture with high precision and tight tolerance

Spartan Racing Combustion/Electric Team Formula SAE, SJSU— Team member Aug 2020 - June 2022

- Researched exhaust system design for optimum flow and sounds control
- Completed assembling and disassembling of various powertrain systems
- Increased efficiency by 15% within the team and help with the manufacture of different brackets
- Communicated consistently between sub-teams and succeeded within a team environment

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PROJECT EXPERIENCE

Drag Reduction System (DRS), SJSU — Team member Jan 2021 - May 2022

- Constructed different types of actuators (electric, hydraulic, pneumatic) to operate the DRS system while following set rules, goals, and weight restrictions
- Evaluated different actuation methods and picked best actuator to open and close the DRS system
- Brainstormed the effectiveness of the DRS and how it will help reduce lap time
- Analyzed timing of the DRS system when open or closed in previous competitions using I2pro

Automatic Window Opener, SJSU — Team lead Jan 2021 - May 2021

- Attained a stepper motor for the application based on velocity, current, torque, and voltage
- Established communications between sensors and motors using Python on a microcontroller (nRF)
- Optimized the parameters with a state diagram for the Adafruit sensors to ease the design and the structure of the program
- Analyzed software structure for sensors and motors with Circuit Python and practiced good programming